Gubler thinks, how far many of the successes attributed to its use are really due to its remedial powers. We forget, he says, the natural processes of cure that often take place. Phosphorus is an active agent that may momentarily re-illumine the fading spark and revivify the languishing powers of life; but as it brings no energy with it, it impoverishes rather than enriches, and can do little for a nervous system exhausted by a chronic affection. The amorphous phosphorus is perhaps the best mode of prescribing it, as this possesses no exciting or irritating action. Externally, it has been chiefly employed in squamous affections of the skin as a parasiticide in itch and as a caustic in the place of the moxa. Recently Tavignot has declared that it will render the cataractous lens transparent, but the negative facts obtained by MM. Gosselin and Maisonneuve render this more than doubtful. In regard to the mode of its administration, solutions are usually preferable to pills. Amongst the former are the ethereal tincture, which contains one part in sixty, and of which ten drops are a dose; the solution in chloroform, which is now almost abandoned; and the solution in oil, which is by far the best, and especially that prepared by Méhu. Here the oil is dehydrated and decolourized by exposure to a heat of 250° C., and the phosphorus is added when it was cooled. A twentieth part of ether is then added. The proportion is one part of phosphorus to 500 of oil, and it contains two milligrammes in fifteen drops. Each capsule contains one milligramme.—*The Practitioner*, July, 1873, from *Bulletin Général de Thérapeutique*, May 30th, 1873.

10. *Nitrate of Zinc as a Caustic.*—M. LEFORT describes (*Journ. de Pharm. et de Chimie*, May, 1873) a caustic paste prepared from nitrate of zinc, which has been reported on favourably by Drs. Clément and Desgrange, of the Hôtel-Dieu, Lyons. The nitrate is prepared by dissolving commercial zinc with heat in equal volumes of nitric acid and water, maintaining an excess of zinc, and concentrating until a slight basic precipitate is formed, which carries down any iron present. Boiling water is then added, and, when cool, the solution is filtered, and evaporated at a gentle heat until slight ebullition takes place; if then left to cool, it forms a cake, which should be broken up and drained in a glass funnel. Of the nitrate of zinc so prepared, 100 grammes are dissolved in 50 grammes of water, and afterwards incorporated with 50 grammes of wheaten flour. This forms an homogeneous paste, which remains soft, spreads easily over surfaces without afterwards contracting, and does not spread at the edges through absorption of moisture. When made into cylinders, it should not be dried by heat, as it slightly decomposes and becomes yellow and friable; it may be kept dry by placing it in a tin box with some pieces of quicklime, but not in contact with them.—*London Medical Record*, June 18, 1873.

MEDICAL PATHOLOGY AND THERAPEUTICS, AND PRACTICAL MEDICINE.

11. *Pathogeny of Spontaneous Cerebral Hemorrhages.*—A writer in the *Mouvement Médicale* (Jan. 11, 1873) remarks that until now the causes to which spontaneous cerebral hemorrhages have been assigned are sclerosis of the small cerebral arteries and fragility of the vascular walls due to atheroma or fatty degeneration, etc. MM. Charcot and Ch. Bouchard, relying on a great number of careful observations, have rejected arterial sclerosis as the cause, and have pointed to the presence of miliary aneurisms as leading to spontaneous hemorrhages. For several years past Zenker has applied himself to the verification of this fact, and in every case that he has himself examined with sufficient care, has determined the presence of miliary aneurisms, not only in the neighbourhood of the hemorrhage clot, but in other parts of the brain. They are true aneurisms, that is to say, they are formed by a vascular dilatation

bounded by all the arterial coats. These minute aneurisms were described long ago by Virchow, but it is unquestionable that MM. Charcot and Bouchard were the first to discover their frequent presence and their pathogenetic influence in spontaneous cerebral hemorrhage. They may be seen with the naked eye, being sometimes scarcely visible, and sometimes about the size of a pin's head. Occasionally they are isolated, but may also be found scattered through the whole extent of the brain. The usual course of cerebral hemorrhages is as follows: The inner coats of the arterioles first become ruptured, and thus give rise to the formation of a dissecting aneurism. This state of things may continue for some time; or, in consequence of a process of regression, nothing remains but a little pigmentary tubercle. Lastly, in other cases the adventitious tunic at length becomes ruptured, and gives rise to a cerebral hemorrhage.

So far Zenker agrees with MM. Charcot and Bouchard, but he differs from them on the following points. While the French authors consider arterial sclerosis as altogether independent of the formation of these minute aneurisms, Zenker, on the contrary, is persuaded that they are due to sclerosis of the inner coat of the cerebral arterioles—a fact which was long since pointed out in regard to aneurisms of the larger arteries. Even if miliary aneurisms may exist without any alteration of the arteries at the base of the brain, microscopical investigations have nevertheless shown that in the neighbourhood of these miliary aneurisms the inner coats of the arterial branches have undergone peculiar changes, consisting of irregular thickening and sclerosis, and sometimes of fatty degeneration.—*Lond. Med. Record*, April 30, 1873.

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12. *Case of Local Softening of the Brain from Thrombosis of Syphilitic Arteries.*—By Dr. J. Hughlings Jackson. A gentleman aged thirty-eight, in apparently good health, was first seen in July, 1867, for recent (July 14th) paralysis of the parts supplied by the left portio dura nerve, and for recent partial deafness of the left ear. There were also remains of paralysis of the right leg, which had begun in April. He rapidly got rid of all his nervous symptoms after taking iodide of potassium; but he did not continue the drug because he believed all his ailments to be owing to ague-poison. He had been in the West Indies, and still remained subject to slight shivering attacks. He had had primary syphilis fifteen years before. He remained well until March 2, 1868, when he became hemiplegic of the left side. He would not take any drugs except aperients. Nevertheless, in about a week he was apparently well again; but on March 21st he was found apoplectic and again hemiplegic—this time of the right side. He died next day. At the necropsy there were found diffluent softening of part of the right corpus striatum, and also softening of the left corpus striatum. There was syphilitic disease of each middle cerebral artery. Thrombosis of each at the part diseased accounted for the two local softenings, and for the two attacks of hemiplegia related to them. The random succession of symptoms in this case was very characteristic of syphilis. Dr. Hughlings Jackson said that the case showed one of the several very indirect ways in which syphilis caused nervous symptoms. The hemiplegia in such a case was dependent directly on softening of the corpus striatum, produced by thrombosis of a syphilitic artery. The "syphilitic hemiplegia" here illustrated was but one of three kinds producible by syphilis. Again, the case showed that recovery would occur from hemiplegia, notwithstanding that the damage which caused that hemiplegia was not altogether repaired. Iodide of potassium was not likely to be useful in such a case of hemiplegia, though syphilitic; while it was useful in cases of recent palsies of cranial nerves. In treating the latter we were treating recent syphilitic disease; whilst in treating the kind of syphilitic hemiplegia under remark, we were treating local cerebral softening.—*Proceedings Brit. Med. Assoc.* in *Brit. Med. Journal*, Aug. 30, 1873.

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13. *Uncommon form of Uric Acid Crystals observed in the Expectorations and in Saccharine Urine.*—Dr. J. W. Moore states (*Irish Hospital Gazette*, July 15, 1873) that he examined the sputum of a gentleman who had for some time been troubled with certain gouty symptoms. In addition to epithelium,